

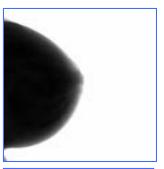
# Innovative Technology Transfer Partnership (ITTP)

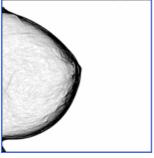


Success Story IMAGE ENHANCEMENT SOFTWARE

## **Description of Innovation**

Engineers at NASA's Kennedy Space Center (KSC) have developed a series of imaging processing technologies which have the potential for applications in industries such as pattern recognition, remote sensing, monitoring, biometrics, optical character recognition and handwriting analysis. Barton Medical Imaging has received a non-exclusive license for the technologies and will incorporate them into their current medical image management and diagnostic systems. Bartron Medical Imaging is a small high technology company located in New Haven Connecticut.





Results of Applying Software to a Mammogram Image

NASA currently uses the imaging technologies in two critical systems: The first system is used to identify and track foreign object debris (FOD) during Space Shuttle liftoff and is a key component of the current analysis in the investigation of the Space Shuttle Columbia explosion. The second system, the Cable and Line Inspection System (CLIM), is used to test the Space Shuttle's emergency escape system.

### **Commercial Benefits**

Under the license agreement Bartron will enhance the performance and range of application of their medical imaging systems by improving accurate edge detection, ability to digitize complex images, and to support the ability of the users to visually recognize the pathogens in typically complex medical imagery. One of the most significant growth factors in this field is the rapid aging of the global population and the subsequent rise in prevalence of many age-related diseases such as cardiovascular disease, cancer and neurological disease. Imaging is particularly well suited to assist in the diagnosis and management of such diseases.



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# **Partnership Contributions**

Bartron Medical Imaging will incorporate the software into their Med-Seg System. Research and Development costs in the neighborhood of \$65,000 will be spent to recode the software to adapt to Bartron Medical Imaging's Med-Seg System. BMI will initially invest an additional \$25,000 to be used for marketing, advertising and promoting at the Radiological Society of North America trade show.

## **ITTP Role**

In a coordinated effort between Research Triangle Institute (RTI), North Carolina, the Southeast Regional Technology Transfer Center at Georgia Tech in Atlanta Georgia and the NASA Kennedy Space Center Technology Transfer Office, the KSC imaging software was marketed nationwide to industries including medical, geophysical, photography, character recognition, and document clean up companies. RTI published a website for interested companies to review information and processed images enhanced by the technologies. John Geikler and Kirsten Reith of Research Triangle Institute fielded requests from companies with further interest in the technologies. Innovators, Jesus Dominguez and Steve Klinko of ASRC Aerospace and NASA's Jose Amador provided answers to questions on the technology. NASA's James Nichols and ASRC's Jeff Kohler processed license applications for the technologies and software usage agreements for other government agencies.

# **Other References, Sources**

www.bartron.ws

### **ITTP Contact**

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# **Industry Contact**

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